## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

1. (Currently Amended) A compound according to formula 1, or a pharmaceutically acceptable salt thereof

$$\begin{array}{c|c}
G^1 & R^3 \\
\hline
O & & & \\
\hline
O & & & \\
\hline
R^2 & & & & \\
\hline
X^1 & & & & \\
\hline
N & & & & \\
\hline
(CH_2)_a & & & \\
\hline
N & & & & \\
(CH_2)_b & & & \\
\hline
1$$

wherein:

-G<sup>1</sup> is a group according to formula 6

$$A^{3}$$

$$A^{6}$$

$$A^{7}$$

$$A^{9}$$

$$A^{11}$$

$$A^{10}$$

$$A^{5}$$

$$A^$$

- -A<sup>3</sup>-is-selected from S, NH, N-alkyl, -CH-CH- and -CH-N-;
- -A<sup>4</sup>-and A<sup>5</sup>-are each selected from CH and N;
- -A<sup>6</sup> is selected from CH<sub>2</sub>, NH, N-alkyl and O;
- -A<sup>7</sup> and A<sup>11</sup> are selected from C and N;
- -A<sup>8</sup>-and A<sup>9</sup>-are selected from CH, N, NH, N(CH<sub>2</sub>)<sub>d</sub>R<sup>7</sup>-and S;
- -A<sup>10</sup> is selected from CH-CH-, CH, N, NH, N(CH<sub>2</sub>)<sub>d</sub>R<sup>7</sup> and S;
- -X<sup>1</sup> is selected from O and NH;
- $-R^{1}$ ,  $R^{2}$  and  $R^{3}$  are each selected from H, alkyl, O-alkyl, F, Cl and Br;
- -R<sup>4</sup> is selected from H, alkyl, alkenyl, alkynyl, optionally substituted phenyl, optionally substituted thienyl, optionally substituted furyl, optionally substituted pyridyl, optionally substituted imidazolyl, optionally substituted inidazolyl, optionally substituted oxazolyl, optionally substituted

thiazolyl, optionally substituted isothiazolyl, (CH2)eR8, -CH2-CH-CH2-R8, -CH2-C=C-

CH<sub>2</sub>-R<sup>8</sup>, (CH<sub>2</sub>)<sub>g</sub>-CH(OH) (CH<sub>2</sub>)<sub>h</sub>-R<sup>8</sup>, (CH<sub>2</sub>)<sub>i</sub>-O (CH<sub>2</sub>)<sub>j</sub>-R<sup>8</sup> and CH<sub>2</sub> ;

- -R<sup>2</sup>-is selected from H, alkyl, optionally substituted phenyl, F, OH, O-alkyl, O acyl, S-alkyl, NH<sub>2</sub>, NH-alkyl, N(alkyl)<sub>2</sub>, NH-acyl, N(alkyl) acyl, CO<sub>2</sub>H, CO<sub>2</sub>-alkyl, CONH<sub>2</sub>, CONH-alkyl, CON(alkyl)<sub>2</sub>, CN and CF<sub>3</sub>;
- -R<sup>8</sup> is selected from H, alkyl, alkenyl, alkynyl, acyl, optionally substituted phenyl, optionally substituted pyridyl, optionally substituted thienyl, optionally substituted furyl, optionally substituted imidazolyl, optionally substituted imidazolyl, optionally substituted oxazolyl, optionally substituted isoxazolyl, optionally substituted thiazolyl, optionally substituted isothiazolyl, F, OH, hydroxyalkyl, O alkyl, O acyl, S alkyl, NH<sub>2</sub>, NH alkyl, N(alkyl)<sub>2</sub>, 1-pyrrolidinyl, 1-piperidinyl, 4-morpholinyl, NH acyl, N(alkyl) acyl, N<sub>3</sub>, CO<sub>2</sub>H, CO<sub>2</sub> alkyl, CONH<sub>2</sub>, CONH alkyl, CON(alkyl)<sub>2</sub>, CN and CF<sub>3</sub>; a is 1 or 2, b is 1, 2 or 3; d is 1, 2 or 3; e is 1, 2, 3 or 4; and g, h, i and j are all independently 1 or 2;

## provided that:

- not more than one of A<sup>8</sup>, A<sup>9</sup> and A<sup>10</sup> is NH, N(CH<sub>2</sub>)<sub>d</sub>R<sup>7</sup> or S;
- -A<sup>7</sup> and A<sup>11</sup> are not both simultaneously N;
- -neither  $\Lambda^7$  nor  $\Lambda^{11}$  is N if one of  $\Lambda^8$ ,  $\Lambda^9$  and  $\Lambda^{10}$  is NH, N(CH<sub>2</sub>)<sub>d</sub>R<sup>7</sup> or S;
- -if  $\Lambda^{10}$  is not—CH=CH—then one of  $\Lambda^{8}$ ,  $\Lambda^{9}$  and  $\Lambda^{10}$  is NH, N(CH<sub>2</sub>)<sub>d</sub>R<sup>7</sup> or S or one of  $\Lambda^{7}$  and  $\Lambda^{11}$  is N;

wherein said compound is selected from the group consisting of:

- -4-(3,3-Dimethyl-butyl) piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetranza-benzo[f]azulene-9-carbonyl) benzylamide;
- 4-(2-Cyclopropyl-ethyl)-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 3-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 3-fluoro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-(2-Hydroxymethyl-cyclopropylmethyl)-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-(3-Methyl-butyl)-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;

- 4-Cyclopentylmethyl-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- -4-Cyclohexylmethyl-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 3-chloro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-chloro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-(2-Cyclopropyl-ethyl)-piperazine-1-carboxylic acid 3-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- -4-Pentyl-piperazine-1-carboxylic acid 2-methyl-4 (3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl) benzylamide;
- -4-Hexyl-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- -(R) 4-(2 Methyl-butyl)-piperazine-1 carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9 carbonyl)-benzylamide;
- -4-(2-Ethyl-butyl) piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- -4 (2 Methyl-but-2-enyl) piperazine-1-carboxylic acid 2-methyl-4 (3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl) benzylamide;
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-fluoro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 2-fluoro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 2-fluoro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 2-ethyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;

- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 2-chloro-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide;
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 2-chloro-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide; and
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-methoxy-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- or a pharmaceutically acceptable salt thereof.
- 2. (Original) A pharmaceutical composition comprising a compound according to claim 1 as an active agent.
- 3. (Original) A pharmaceutical composition according to Claim 2 formulated as a tablet or capsule for oral administration.
- 4. (Currently Amended) A pharmaceutical composition according to Claim 2, comprising <u>0.1 1000 mg</u> an amount of said active agent effective for treatment of primary dysmenorrhoea.
- 5. (Currently Amended) A pharmaceutical composition according to Claim 2, comprising <u>1-250 mg</u> an amount of said active agent effective for treatment of male erectile dysfunction.

## Claims 6-62 (Cancelled)

- 63. (Currently Amended) A method for treatment of male erectile dysfunction which comprises the administration to a person in need of such treatment of therapeutically effective amount of a compound selected from the group consisting of:
- -4-(3,3-Dimethyl-butyl) piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl) benzylamide,
- 4-(2-Cyclopropyl-ethyl)-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 3-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 3-fluoro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,

- 4-(2-Hydroxymethyl-cyclopropylmethyl)-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- -4-(3-Methyl-butyl)-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopentylmethyl-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- -4-Cyclohexylmethyl-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 3-chloro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-chloro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-(2-Cyclopropyl-ethyl)-piperazine-1-carboxylic acid 3-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Pentyl-piperazine-1-carboxylic acid 2-methyl-4 (3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- -4-Hexyl-piperazine-1-carboxylic acid 2-methyl-4 (3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- -(R) 4 (2 Methyl-butyl) piperazine-1-carboxylic acid 2 methyl-4-(3-methyl-4,10 dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl) benzylamide,
- -4 (2-Ethyl-butyl) piperazine-1 carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl) benzylamide,
- -4 (2 Methyl-but-2-enyl) piperazine-1-carboxylic acid 2-methyl-4 (3-methyl-4,10 dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl) benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-fluoro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 2-fluoro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 2-fluoro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,

- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 2-ethyl-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 2-chloro-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 2-chloro-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-methoxy-4-(3-methyl-4,10-dihydro-3H-
- $2, 3, 4, 9\text{-}tetra aza-benzo [f] azulene-9\text{-}carbonyl)\text{-}benzylamide; and }$
- pharmaceutically acceptable salts thereof of the above mentioned compounds.
- 64. (New) A method for treatment of pre-term labor which comprises the administration to a person in need of such treatment of therapeutically effective amount of a compound selected from the group consisting of:
- 4-(2-Cyclopropyl-ethyl)-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 3-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 3-fluoro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-(2-Hydroxymethyl-cyclopropylmethyl)-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopentylmethyl-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 3-chloro-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-chloro-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 2-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-(2-Cyclopropyl-ethyl)-piperazine-1-carboxylic acid 3-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-methyl-4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,

- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-fluoro-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 2-fluoro-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 2-fluoro-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 4-(3-methyl-4,10-dihydro-3H-2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 2-ethyl-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 2-chloro-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclopropylmethyl-piperazine-1-carboxylic acid 2-chloro-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide,
- 4-Cyclobutylmethyl-piperazine-1-carboxylic acid 3-methoxy-4-(3-methyl-4,10-dihydro-3H-
- 2,3,4,9-tetraaza-benzo[f]azulene-9-carbonyl)-benzylamide; and pharmaceutically acceptable salts thereof.